at1113exam: Expand, factor, and solve quadratics (v556)

1. Expand the following expression into standard form.

$$(2x + 3)(2x - 3)$$

2. Expand the following expression into standard form.

$$(8x + 5)^2$$

3. Solve the equation.
$$(4x + 3)(9x - 5) = 0$$

4. Expand the following expression into standard form.

$$(9x - 5)(3x - 2)$$

5. Solve the equation.
$$11x^2 - 53x - 43 = 4x^2 - 3x + 5$$

6. Factor the expression.

$$x^2 + 14x + 48$$

7. Factor the expression.
$$81x^2 - 25$$

8. Solve the equation with factoring by grouping.

$$20x^2 + 15x + 8x + 6 \;=\; 0$$